The digital regime of truth

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The Digital Regime of Truth: From the Algorithmic Governmentality to a New Rule of Law[*]

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Abstract

1. This text is a transcription of Rouvroy's presentation on 7th October 2014 at the "Digital Studies" seminar series at the Centre Georges Pompidou. This seminar series, organised by the French philosopher Bernard Stiegler, question the influence of digital technologies on knowledge from an epistemological point of view and from the way they alter academic disciplines.
2. The objective is to open a debate on the status of these technologies in contemporary and future societies, and to bring about an international debate and contributions around digital studies. During this seminar, Bernard Stiegler discussed with the Belgian legal philosopher Antoinette Rouvroy, based at the University of Namur, and who developed in the last few years a new line of inquiry around what she called with Thomas Berns 'algorithmic governmentality'. We have transcribed here her presentation and the first part of the debate that followed.

Presentation by Antoinette Rouvroy

3. In the last few years, I have been working on the question of algorithmic governmentality to make sense of a phenomenon that is difficult to grasp. I will give you a few examples to demonstrate the arrival of this mode of government of conducts. The epistemic, epistemological and semiotic alterations due to the digital turn have had fundamental consequences on the normative metabolism, that is, on the very making of norms and how they breed obedience.
4. In response to this revealing title 'the regime of digital truth', which was assigned to me rather than my own, I would like to first examine the intuitive appropriateness of Foucault's notion of regime of truth for the new modes of the categorisation of the real that allow Big Data and especially techniques of data analytics and data mining;

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we need to assess importing this notion of regime of truth onto this new terrain works (and what kind of work this would produce). Then, I would like to show the existence of oversights when we want to problematise the infatuation for Big Data and the presentation or the making of the real through its algorithmic modelling. Indeed, the main problem we encounter is the crisis of representation. It is also the crisis of the notions of ordeal and event, thus a crisis of critique itself.

5. Representation, ordeal, event and critique are in a way by-passed by the new possibilities of modelling of the world. When I refer to a crisis of representation, it is of course a radical crisis: it is not merely a crisis of representation as political representation, whether it is algorithmic or not, but really a crisis of representation in itself. Representation here is the result after a transcription and an interpretation. In this sense, I would like to show that with algorithmic governmentality, what we face is precisely a crisis of the regimes of truth. To my mind, we are less facing the emergence of a new regime of truth than a crisis of regimes of truth. A whole range of notions are in crisis: the notions of person, authority, testimony.
6. To get into the disincarnated flesh of this subject, I will also be interested in the notion of raw data as the zero degree of writing. I want to distinguish quite clearly what is produced effectively in the practice of those who data-mine and give an existence to algorithms, to a kind of Big Data ideology. I will try to show that by bringing regimes of truth in crisis we can perceived a search for the absolute objectivity, a search that attempts to be as close as possible to the real, which is in fact a search for security and therefore certainty. This trajectory is quite peculiar: this search for objectivity and security is translated by a search for, not necessarily for the eradication of uncertainty, but for a neutralisation of these negative effects of a radical uncertainty that are suspended in fluxes.
7. What kind of fluxes are these? There are fluxes of data, persons, capitals. This way I can show, I hope, that there is a close complicity between what I call algorithmic governmentality and advanced capitalism, which algorithmic governmentality does not necessarily produce the same disciplinary effects on persons that neoliberalism would. *In fine*, the main problem, but it could also appear as rejoicing news, is that reality or the real as such is today taking over. The concept of truth is increasingly wrapped up at the expense of pure reality or pure actuality, to the extent that eventually things seem to be speaking by themselves.
8. We are no longer dealing with things, since there are no longer any things, there are no longer resilient objects: there are only networks of data evolving in real-time and that aggregate from time to time as profile, patterns and so on. But raw data seem to be speaking by themselves. We no longer distinguish what used to come under the sign or the signal and the thing. What is lost with this entanglement is the possibility of critique. The question worth asking today is: what is the significance of critique? What do we lose in this enclosure produced by the digital?

9. First, it is worth remembering that data in their proliferation are not simply given.[1] Data are processed, ranked and so on. Producing data is an extremely sophisticated work, including the production of raw data; in the Big Data ideology, this seems to emanate spontaneously from nature. The work of data scientists is an important one: cleaning or ranking data. This cleaning is to me mostly an operation of purification in which data are expurgated from everything that makes up their context, their relation to the singularity of lives and their singular significance.
10. The production of Big Data, or rather raw data, is a work of cancelling out all meaning, so that these raw data can be calculable and function as signs in relation to what they represent; they substitute themselves to the meaningful reality. This meaningful reality is substituted by a set of a-significant data that function as signals, and therefore is stripped of any signification to be calculable. In fact, this definition of signal given by Umberto Eco: a signal is an element without signification, an element that does not mean anything in itself and thus can be calculable.
11. Today, data are either what we call 'hard data', that is consolidated data produced by public administrations, or they are 'soft data', those produced by social networks, by geolocalisation recorded in GPS devices, as well as data produced by connected objects (the Internet of Things). These data are composed of images, sounds and localisations. A definition of Big Data that unravels the triumphalist character of the very expression 'big data' can be formulated this way: Big Data is simply the excess of velocity, rapidity, quantity of data and complexity that we can no longer understand with our modern rationality, that is with the rationality that consisted in understanding phenomena by relating them to their causes. We have to abandon this rationality, in favour of a kind of postmodern rationality that is purely inductive and that renounces to research causes of phenomena and aims simply at predicting more or less their occurrences. This is caricature of course, but it is the passage from a deductive logic to a purely inductive logic.
12. This is already an important leap in the presentation of what counts as real. I will not presuppose that the real can be accessible or had ever been accessible to us. Each epoch has its own way to make the real manageable without it ever being accessible. Boltanski makes a very interesting distinction between the idea of world and that of reality. To him, the world is where things occur, it is what is foreseeable while adding the radical and irreducible element of unpredictability. All these events that can occur and that we cannot predict, it is the excess of the possible on the probable, that is everything that escapes it, for instance the actuarial reality with which we try precisely to make the world more manageable in reducing it to what is predictable. This is caricature but we have left this idea of the actuarial reality behind for what I would call a 'post-actuarial reality' in which it is no longer about calculating

[1] [Trans.] *Données* in French referring to both data as well as 'what is given' but also in informal language to something cheap.

probabilities but to account in advance for what escapes probability and thus the excess of the possible on the probable.

13. The second feature of this new perspective on the world: we feel that with Big Data we no longer have to produce knowledges about the world, but that we can discover knowledge directly in the world. With Big Data produced by social networks in particular, we find it possible to model the social directly in the social. It could seem emancipating to a certain extent because it no longer presupposes any a priori model, or any sorting either; we therefore feel a sense of great objectivity. It seems perfectly democratic that the social no longer needs to go through categorisations dictated by political power relations. We face an abundance of data, we could even say becoming-number of life itself, since individuals are considered as temporary aggregate of exploitable data at an industrial scale.
14. We also notice a dissipation or an explosion of all forms, objects and persons. What is left are only a set of indexes. We can also observe the complicity or at least a parallel between some modes of neoliberal government and the way individuals see their life as having a value only after being indexed according to their popularity on social networks, on the number of citations of the works, or on all sorts of quantification of the self. This 'machinic' dimension affects individuals in the way they design themselves autobiographically, biographically and the way they self-reflect. This explosion of data, but also of forms and persons, it is a hyperindexation of absolutely everything, including the personal form. Something seems quite worrying to me: the fact that individuals themselves come to conceive themselves as only hyperquantified – and we refer to the 'quantified self'. They have value only according to the outside and to the performances of others.
15. We are here in a hypercompetitive society, including at the level of individuation and subjectivation. We could argue that this is a good thing to compare oneself to others. At least we are no longer self-enclosed and it is inter-personal individuation. Except that each hyperindexed individual is effectively a multitude, but a multitude without others since in these dispositifs each individual becomes his or her own statistical reference, for instance the quantified self or the profiles of readers on specific online bookshops. In your online bookshop, a given book is recommended to you since these persons who have bought the same books as you have also bought these other books, and you can feel that you belong to a community; it is however a community that you will have no way of meeting. This massive collection of data generates absolutely no recalcitrance, but also because these signals that are insignificant to the persons who are emitting them. Even if you never go online, even if you are absolutely disconnected from everything, which is not very plausible perspective today, it only takes your neighbour to be online to infer a lot of information on you: the fact that you live next to this person and so on.

16. This becoming-number of life, to which is substituted not a truth but a digital reality – a reality that pretends to be everyone, or to be more precise, it pretends to be non-constructed – is a phenomenon extremely significant of our epoch, even it seems abstract. We can feel that it does not reach our everyday affects, but I think this is wrong and I make the hypothesis that it is all the way more efficient that it first appears as inoffensive. Hence, it only takes to run the algorithms on massive quantities of data to produce almost with magic some hypotheses about the world, these will not necessarily be verified but they will be operational and we have the impression to have reached the holy grail. We feel that we have reach the idea of a 'truth' but which, in order to establish itself, does not need to go through any ordeal, any investigation, or any exam and which to come about no longer depends on any event. Here, I think we are leaving the notion of regime of truth in Foucault and the link that Alain Badiou makes between 'event' and 'truth'.
17. We are in a kind of immanence that seems entirely perfect, and nothing seems to be left out from this immanence. It is the pretention to a kind of totality. We speak of Big Data in arguing that everything that is recordable and digitisable is part of it. Yet, as everything becomes digitisable, the totality will soon be part of Big Data. But this overlooks the remnants and I think it is from these that we can produce a recalcitrance. These are at least of three orders: first there are temporal remnants – this expression is clumsy and I am not entirely sure about this expression. It includes what is not carried out in history. From the moment that you record all events, only those that are really produced are indeed recorded. Yet, we know that the past is charged with a multitude of unaccomplished projects, non-realised utopias – and we find some of traces of these in works of art (Bailly 2010). All this unrealised, that represents an incomparable and incredible resource, extremely rich to think today's and tomorrow's utopias, cannot be in the digital since precisely it was not carried out or actualised, and therefore it could not find a place in any present. These remnants escape digitisation, while they are extremely important culturally and politically.
18. Another remnant that escapes digitisation is the future. Spinoza said we do not know what a body can do. This conditional dimension about what a body could do, it is the conditional dimension in itself. Previously I wrote that the target of algorithmic governmentality is precisely this unrealised part of the future, the actualisation of the virtual. But of course, there is a recalcitrance of human life to any excessive organisation (Manchev 2009). I think that this unrealised in the future is effectively a source of recalcitrance, and even if we believe that we can predict everything (and this comes under the Big Data ideology: 'crunching numbers is the new way to be smart').
19. Thirdly, everything is not digitisable, in particular what comes under the human indulgence. For instance, misery and pity are not digitisable. This is the difference between a robot-judge and a human judge. Some people work seriously on a kind of

robotisation of justice: eventually, codes are only algorithms and judges need to follow them, so why not augmenting the impartiality, the speed and the efficiency in automatising justice decisions? It is already taking place. For instance, there are systems of recommendations in relation to early release for defendants or to evaluate risks of second offence. These are built on behavioural models founded on the analysis of Big Data, using profiles of typical second offenders. It is of course extremely tempting to follow such systems of recommendations for a judge or for someone who has to decide whether to keep someone in prison or to release him or her. If we deviate from these recommendations, if we decide against the machine's position, we take personally the responsibility of a possible second offence. Perhaps there is some progress made on a specific notion of objectivity, but we can also lose something in the understanding of justice (that is particularly important in my opinion) as an undecidable horizon.

20. Let us take another example to make this more explicit: we may as well imagine that insurers, especially those in charge of life insurance policies, use all the social media data and the data from mailing-lists to evaluate amongst the insured or the insurance candidates those who are victim of domestic violence. It is quite easy since online forums are full of individuals seeking support, advice, or seeking at creating a community in front of such affliction. From the perspective of actuarial justice, it would mean to say that everyone should pay for his or her own disaster. It is the obsession with real costs: the premium of insurance should be adjusted as much as possible to reflect the risks of each insurer, and it is unjust that some who have less risks pay for those who have more risks – the opposite logic of social insurance, obviously.
21. The principle is entirely rational and very objective: each pays for his or her own risk. However, this comes against the notion of social justice or equity. We can think: frankly, society should be a solidarity against the possibility to be a victim of domestic violence. The search for objectivity becomes problematic in these kinds of examples. This search also involves a search for economic security by a retreat of the self and an unravelling of the forms of solidarity. It is also a search for certainty since the person who could prematurely die from domestic violence will be considered as almost already dead. This person is therefore removed from insurance.
22. This is the actualisation of the virtual: we bring to existence in advance what exists at the virtual mode. In separating individuals from their possibility of not actualising what they are capable, or their possibility of not being subjected to what they are likely to be subjected to. What is fundamental in my opinion is this distinction between actuality and specific capacity, which is now threatened by algorithmic governmentality and which we do not yet manage to protect in law. It is this possibility of not being assimilated to the totality of one's own potentiality, and thus of not being judged in advance by the fact that one's online profile, and not be

subjected in the actuality of one's own life to the consequences of these modes of profiling. We therefore face a search for objectivity, security and certainty; the general aim is to manage the incompressible part of radical uncertainty because this radical uncertainty suspends fluxes. An example of this is when Amazon as a company patents a software to send in advance orders that were not yet finalised. This reduction of the deferral effect in fluxes is done by removing or by-passing three main sources of radical uncertainty: subjectivity, selectivity and virtuality.

23. These are main sources of uncertainty that algorithmic governmentality allows to by-pass. By-passing subjectivity: subjectivity resides in evaluation, the fact that we do not know if the individual will always do what he or she is capable of doing, this possibility of not doing, this possibility to disobey including to a legal prohibition. We will replace human evaluation with algorithms, we will replace for instance the evaluation of a customs officer by a system of automatic detection founded on a multimodal observation to evaluate frauds. There are many European projects that are taking this path. We by-pass subjectivity by automatisation.
24. Automatisation and acceleration of the production of knowledges from data of kinds and in large amounts have become a necessity. We avoid the subjectivity of observed individuals. We will categorise you according to raw data, that have for you no meaning, according to algorithms, that you do not know how they work, and this will have consequences on your life. It will affect you at the level of reflex rather than at the level of reflexivity – in other words it will only send you alerts. For example, in the domain of marketing, you will have your attention attracted by this thing or that object. Nothing is more voluntary than to catch someone's attention.
25. Here also, we by-pass subjectivity since we no longer appeal to your capacity of the understanding and will to govern you, or to make you finalise your purchase, or on the contrary, to prevent you from even thinking about disobeying the rule. It is no longer a matter of threatening you or inciting you, but simply by sending you signals that provoke stimuli and therefore reflexes. There is no longer any subject in fact. It is not only that there are no longer any subjectivity, but it is that the very notion of subject is itself being completely eliminated thanks to this collection of infra-individual data; these are recomposed at a supra-individual level under the form of profile. You no longer ever appear.
26. I understand the problem for legislators to protect, to erect barriers around the subject-person individual, but these barriers emphasise precisely what is at stake in what I am trying to present here. This has to do with the notion of person anymore. We can give rights to individuals on their personal data, and this is necessary. But all these rights are not applicable to everything that I am describing here. Big Data is interested in categorising of a quantity of persons but without being concerned about these persons individually. We by-pass the subjectivity and we thus arrive at a kind of very objective operability – a kind of machinic objectivity.

27. There are different types of objectivity (Daston and Galison 2012). We can think of these critical objectivities of the observer that are brought into question. It is the presence of an observing subject that makes it objective since he or she uses critique, but in Big Data we are far from this situation. We can think of an objectivity in the way naturalists thought about it [in the 18th century]. Their representations were all the more objective that they were transmissible to others. They drew flowers that were the ideal-type of a flower, and these images were transmissible. The naturalists wanted to say something for everyone and it was really linked to the means of communication of the time. But here, we are in a different kind of objectivity that results from the absence of any subject and the incommunicability as well as the unintelligibility. It is deeply paradoxical.
28. There is also a search for the elimination of interruptions in flows produced by uncertainty – this is done by removing selectivity. We give a feeling of a great objectivity but this is the Big Data ideology, as I have already mentioned, and not necessarily those who work with Big Data every day. By 'ideology', I do not refer to political ideology (as in Althusser) but at the notion of technical ideology described by Macherey (2008), after Michel Pêcheux. Everything is recorded and therefore it is exhaustive. There is no a priori ranking, you cannot therefore claim to have been categorised this or that way since we have not gathered data on others, but we were only aiming at you. It is exactly the opposite of targeting, so it seems perfectly democratic. This impression of non-selectivity and exhaustiveness is also translated in the evolutions that Big Data produced on way of doing statistics. We are far from the traditional practices of statistics in which points far from the average or from the line of repartition were ignored as noise or perturbation.
29. Today, new abilities to manage large datasets by computers mean that not only that we no longer need to select data – we can take everything into account – but also, to build profiles or patterns, we need noise. Nothing but noise; everything is potentially useful or taken into account. Even what is the farthest from the average and large numbers, what is the most singular and an infinite number of profiles will proliferate. So many profiles that eventually will be surrounded with everything composing their profile, like a second skin – and not wanted to be profiled will mean not wanting to be oneself [*ne pas se vouloir soi-même*]. Such is the paradox of an industrial personalisation that starts from the pretention to exhaustiveness.
30. Finally, and I have already mentioned this, the third source of radical uncertainty is virtuality: we attempt not to domesticate virtuality but to neutralise its effects. By virtual, I do not mean what we commonly refer as the virtual, that is everything that comes on a computer screen and that we oppose to 'real' life. Everything that happens on a computer screen and behind a computer screen is as real as what is happening between us today. Instead I revisit Deleuze's distinctions. I oppose the virtual and the actual, and not at all the virtual and the real. The virtual is the

dimension that apprehended by the real; it is this dimension of possibilities that which any form of presence fears. For instance, the fact that us human beings are individually not entirely contained in actuality. We are inhabited by our dreams, by our past but also inhabited by our future and the projections that we make and what we imagine around us.

31. Perhaps in a naïve way, I represent virtuality for an individual as the equivalent to what utopias are for collectives. It is a reserve for evolution and individuation. It is the unrealised in the individual. This virtuality is precisely what makes us beings who call ourselves free. I take all the necessary precautions in arguing this since at the same time that it makes it possible for us to call ourselves free, we can also consider seriously that we are perhaps in an entirely deterministic world. This is what allows to stop opposing determinism and freedom. This is what makes the virtual really interesting, I think, since I do not want to come back to the idea of a self-posed, autonomous and rational subject: this is a functional fiction, especially for law. It is a fiction that I do not want to give more or less reality, since this is not the issue. We have never been autonomous.
32. In insisting on the notion of virtuality as what allows us to conceive our liberty in a situation of determinism, I come close, if I understood him well enough, to some presentations given by Henri Atlan. He explained to me that in fact liberty is a capacity that we have to believe ourselves as free, to feel free to make choices when precisely these choices are to some extent determined. This is what Robert Musil described as the capacity that we have to voluntarily make what we want involuntarily. This seems indescribable without the notion of virtuality or that of potentiality or 'agency' (this English word that does not have an equivalent in French). This virtuality is always a challenge for institutions and it has always been considered as something dangerous. But in other times, we contented ourselves with it, we managed this differently in neutralising its effects.
33. An example of virtuality in law: the fact that some given behaviours are forbidden by law does not imply that these behaviours will not questioned. There is a difference between norms or laws and the subject. It is not that the subject pre-exists to the norm, but it comes into being in a different way, with an entire set of virtualities, amongst them we find the potentiality or the possibility to disobey that the law handles carefully against itself. We always have the possibility to disobey the law. It is not that because it is forbidden that we cannot do it. However, when we move from a legal prohibition to other modes of governmentality as algorithmic governmentality that would permit to actualise the virtual – and therefore to give existence in advance to acts that are not yet committed – we move from a penal logic to an intelligence logic and indeed this possibility to disobey disappears entirely, it is no longer handled carefully.

34. We can claim 'that's for the better' since it is more efficient. But also 'too bad' since we lose the possibility to contest the norm. The norm is no longer explicit and is not as explicit as a law and it is no longer contestable. It is no longer contestable in court since there is no longer disobedience and thus it longer need to be interpreted. This is called pre-emption. This is pre-emption and not prevention. This nuance can seem futile but I think it is an important nuance. It is not prediction either. It is a regime of action on the future which is absolutely new, in my opinion. Prevention consists in acting on the causes of phenomena so that we know that these phenomena will happen or will not happen. This is not at all what we are dealing with here in algorithmic governmentality since we have forgotten about causality and we are no longer in a causal regime. It is pre-emption and it consists in acting not on the causes but on the informational and physical environment so that certain things can or cannot be actualised, so that they can or cannot be possible. This is extremely different: it is an augmented actuality of the possible. Reality therefore fills the entire room, reality as actuality. This is a specific actuality that takes the form of a vortex aspiring both the past and the future. Everything becomes actual.
35. We could now ask ourselves where is the place for the concept of truth in relation to all this. I think that the concept of truth has no longer any room. It might depend on how we define truth. If we define truth as regimes of truth as Michel Foucault does – who argued that they were processes that established what we take as true – then there might be some room for truth but the notion of process here is greatly condensed on pure actuality. Regimes of truth in Foucault presuppose a group of devices and institutions. Here, we witness the disappearance of institutions and devices that engaged individuals. Here there is no commitment, there are no longer any committed individuals to produce truth, but there are no longer any constraints either. Maybe we never felt as free as in a regime of algorithmic governmentality. In the Foucauldian hypothesis of regimes of truth, individuals are constrained to raise well-defined acts of truth, as avowal, testimony and so on. These are raised with certain conditions and certain effects. Of course, algorithmic governmentality permits to remove all these encounters: appearance before the law [*comparution*], avowals, testimonies, everything that uses human language. The language stock has sharply fallen; we are no longer in language. In his book *Wrong-Doing, Truth-Telling*, a collection of conferences delivered at Leuven University, Foucault describes the avowal as being exactly what the individual uses to become what he or she is, to become what he or she has done. This extremely subjectivising aspect of avowal, of course, we no longer find it.
36. There is no moment for subjectivation, there is no interpellation other than interpellations by machines, by profiles and these are not really interpellations since on contrary, the machine answers in your place. You do not have to report your activities. Besides, we find that in an increasingly number of activities, to report is

concomitant with or even fused with the activity in itself. When we participate in research projects, we know that the only thing that we do is producing reports. What disappears is the deferred action.

37. This is why I started my presentation by claiming that there is a crisis of representation, in all its connotations. Representation implies that we present something that has vanished. Testimony is a way to bring back persons that no longer exist. There is a kind of lack or a hiatus. It is precisely this lack or hiatus that constitutes the tragic character of the human. It is also the impossibility to find oneself again in one's own gestures. Althusser's autobiography *The Future Last a Long Time* (1994) is also a melancholic meditation on the fact that he was deprived of a trial that could have allowed him to find himself a posteriori in his own gestures.
38. This afterwardness is what we want. We are caught in this passion of the real for the real, this passion of the actual for the actual – thus the end of representation. Yet, I think that we only have access to the world by all sorts of representations, often these are contradictory, and more importantly it is precisely since we need to represent things that we need something in common, that we need to meet each other. It is precisely because we cannot find ourselves in our own gestures that we need to be called [*interpellés*] and call each other.
39. It is because there is no one that we speak. I do not come back to a personological vision, quite the contrary. There is no one contrary to what hyper-personalisation attempts to make us believe. This hyper-personalisation costs us a lot and we are gratified on a daily basis when we turn on our computer. We are no one. Pierre Legendre refers to institutions as an empty-peopled place. Deleuze argued that the people is missing. It is this lack precisely that makes us speak, and makes us tell our truth. We can refer to *parrhesia* in Foucault also. Telling our truth, this is what I tried to do as well by putting myself at risk: to expose: to lay myself open to others. But if fragments of things or data speak for themselves, if they were to speak for us, well then we would no longer have anything to tell.

Discussion by Bernard Stiegler

40. The stand that we take here at the Institute for Research and Innovation (IRI) is that what you just described is what we call grammatisation, which is the process of discretisation of flows, their spatialisation as well as their resulting calculability. But not only calculability: interpretation as well. And it is on that point that I would like to take a little step away from your analysis. We argue that the processes that you just described are entropic, and so self-destructing – or to put it in a very outdated way: these processes are irrational. This is to say that what is being developed with what you propose as algorithmic governmentality can only lead to failure.

41. So for us, the question of algorithmic governmentality of *big data*, or of the economy of *data* more generally—because there is not only *big data* or *open data*—is a state of affairs caught(?) in a process of grammatisation. We absolutely cannot believe in the ban on *big data*, on *open data* or of *data* in general.
42. The topic of *big data* itself, for me, is the topic that is concerned with the relation between the fact and the law. The now famous, much commented on, text by Chris Anderson (2008) states that theory is over, that the scientific method is obsolete. What does it mean? It means that the difference between fact and law is outdated. And that's what I am interest in because the distinction between fact and law is what is common to mathematicians, philosophers, and to jurists, namely to all who reason rationally.
43. A judge knows very well, if he is really a judge and not a robot, that the law is not the fact, that the law is a promise, that the world is unfair, fundamentally unfair and will always be, but the problem does not lie here. The problem is not what the world is but what we want the world to be. It is not at all the same thing, it is what you called earlier the virtual and what I call 'protentions', or desire. The law does not exist; the law is a promise. It is something we promise to abide by together as much as we can be knowing that it will never hold in reality otherwise there would be no injustice, no criminals, there would be no law courts, we would have no need for it.
44. I am not sure that algorithmic governmentality, the way you describe it, is a regime of truth. I think that Foucault did not simply conceive of the question of regimes of truth like that. Rather I think that Foucault contests that regime of truth which supports what I was saying: the fact is not the law. I would also like to underline that you used the term '*big data* ideology' and Foucault says that ideology does not exist, that it is a mistake. I think that he is absolutely wrong. I wrote a book titled *States of Shock* (2012) in which I tried to show that Foucault, Derrida, Lyotard, Guattari broke fundamentally important tools because they believed that ideology was only what Marxists said about it. But ideology is not what Marxists say it is. It is what Engels and Marx (1998) talk about in *The German Ideology* at a time when they are not at all Marxists.
45. In *The German Ideology*, Marx and Engels say that man is a technical being. As such, he is lured by his technics. There is a dominant class that seizes this luring power of technics to dominate those who are lured by it. And that is that way it is. It is not about the bad guys or the good guys: it is like that. They indeed say that what is going on with technics and with the relation between humans and technique is the same as what goes on in the retina: we invert the causes and thus we search for them in the sky, in the realm of ideas, whereas they are in fact to be found in immanence. This type of technical immanence I call it organological.
46. As you said, what is going on with the way in which personalised statistics of algorithmic governementality decompose personalities through profiling, doubles

them via profiles—we are now talking about digital doubles—and, finally, articulates this decomposition in graphs that enable action through the calculation of correlation, it is there that *big data* function. This produces what Guattari and Deleuze called "dividuals" when they started to doubt themselves. The 'Postscript on the Societies of Control' is a calling into question of Deleuze by Deleuze. It does not mean that he disavows what he said, but that he questions if we have actually taken into account all that is going on.

47. Anyhow, the work you do interests me greatly. First of all, your analysis of the digital is extraordinarily efficient and necessary. Second of all, you call into question a whole tradition that we repeat over and over again like parrots: Deleuze, Foucault, Blanchot… and that we don't know how to work with. And I tell myself that if Foucault were here, he would be over eighty-four years old and he would have been fascinated by algorithmic governmentality. He would say: "But oh! But, all I said before is…" So, he would be confronted with what we are talking about now, he would call absolutely everything into question, like every philosopher always does, the real ones.
48. Now, regarding the multitude. Ok, yes: the multitude, but when it becomes the basis for algorithmic governmentality, should we not go a little further than that? It is not at all about having a bone to pick with great thinkers, who personally I admire and cannot stop reading because they continue to inspire me. These great ideas did not become obsolete because the real suddenly makes them more complex. On the contrary, they became even more necessary but on one condition: to not simply repeat them otherwise we become trained monkeys and this is a catastrophe. Perfect immanence, it is the same.
49. These are the topics and you demonstrate that all of this is in the process of being accomplished. And what does it do? That leaves us with remains with regard to which the question of recalcitrance is going to be asked. In your article (Rouvroy and Berns, 2013), to avoid talking about remains (*restes*) you talk about failures (*ratés*). I am very much interested in failure. Remains are thought about by Derrida, it is what he calls "remaining" (*la restance*). I have to admit that he never fully convinced me on that point. However, failure convinces me entirely: it is always in failure that one invents the future. Successes are not that interesting. Accidents, failures, for which Epimetheus is the hero, the god, those are the interesting ones.
50. I would like to pursue a few propositions. I would like to object to something. You asked the question of what is not digitizable. I think that everything is digitizable and that the problem is not whether something can be digitised or not, rather the problem is: is it reducible to a calculus or not? I have been a militant of digital practices for over thirty years because I completed my dissertation using digital tools. At that time, we were really not that many because machines were not very easy to use . It is at that time that I met people like Philippe Aigrain and that we

worked together with the French National Library (BnF) to develop models of computational machines that could not be reduced to *computing* but allowed the practice of interpretation. To be able to interpret, one needs to calculate. At a given moment, data come to you to interpret that are not calculable and you are going to calculate how to establish them as data or a sets of data. When Kant posits that reason is in fact exploded into different faculties and that analytical understanding is analytical, meaning that it is computable in reality, at that point the understanding can be transformed into a calculus.

51. I think that for Kant it would not be a problem to say that we are going to automatise the functioning of the understanding. He may have a hard time imagining it but in trying harder, since he had a very well-functioning head, he would come to the realisation that yes, of course… As soon as the understanding can be transformed, I don't know, into Leibniz's calculating machine for instance, why would it not become *big data*? But it is the understanding. And Kant affirms that the only thing that counts is reason, and reason is not the understanding. Reason is what collects data captured from the realm of experience, in intuition via the understanding to make decisions. Reason is what decides. It is the experience of what Kant names the kingdom of ends. Roughly speaking, we could name it the will. It is obviously not as simple as that.
52. At the end of your above-mentioned article but also in other papers and especially the one you wrote for the journal *Médiapart* (Rouvroy 2012), you asked the question of the law in algorithmic governmentality. I maintain that this law is necessarily a law that revisits the difference between law and fact and that re-teaches us why the law is never reducible to the fact. This would settle the score with Chris Anderson (2008). For me, the problem starts here, and that is why for me Anderson's article is very important because for the first time, at least to my knowledge, the problem of what would later be called *big data* is being asked (since at first we did not call them *big data* but "data books"). The name *big data* appeared not long ago, three or four years. Chris Anderson posits that we no longer need theory, namely models: all we need are correlations between facts. For him, the understanding, in fact, has become self-sufficient. We no longer need reason, to use reason, nor to have debates.
53. The first person to rise against Chris Anderson will be Alan Greenspan, who four months later in front of the American senate will declare that he believed the economists who stated that we can automatise consumers' rational reasoning, and that he allowed such automatisation to take place, and that now he realises that he was wrong. This is because we thus lost reason. We gained in understanding but we lost in reasoning. We are then no longer able to criticise, to see that models for instance—he states that explicitly—were built from only twenty years of collected data and that they should have been infinitised because in reality, there is a margin of improbability in economics, this time in the sense of Blanchot. Kant's answer is: there is the improbable and so we need reason to decide. We thus have to be able to

de-automatise. At the IRI, we think that the question is not about preventing automation from developing. On the contrary, it is about being able to de-automatise and transform these automata into rational and not only analytical processes, because the processes of the understanding are purely analytical. The processes of reasoning are synthetic processes. Meaning that at a given moment, a synthesis needs to be carried out.

54. Since we briefly mentioned Foucault and ideology, I will resume my analysis of the 'regime of truth' at the *Entretiens du nouveau monde industriel* in December, which is a problem that has not been developed very fully by Foucault himself. I would say that there are regimes of truth and that these regimes are 'organologies of truth'. For our institute, the process of 'truthability', what we call the production of 'veritative' (*véritatifs*) statements—statements that establish what truth is in a domain, its conditions, protocols, etc.— relates to the assemblage (*agencement*) established between retention and protention, and between primary, secondary and tertiary retention.
55. I am using a terminology that may not be known to everybody. These are concepts that come from Husserl and that have been used by a number of other thinkers. I myself took up Husserl's concepts of primary and secondary retention and I added to it the concept of tertiary retention. Primary retention is what you are doing right now when trying to understand what I mean: you are trying to retain what I mean, to concatenate it, to articulate and aggregate it—as Husserl says—with what I am in the process of saying now. Of this aggregative process, Husserl said that it is not of the past (*du passé*) but of the present (*du présent*) because you are currently trying in the moment to retain what I said since I started talking. It is thus of the present.
56. Secondary retentions are of the past, they are things that you have formerly experienced. The way in which you retain things that I am in the process of talking about depends upon what you have experienced in the past. In this way, secondary retentions determine primary retentions, or rather condition them. This is not exactly Husserl's point of view, it is mine. It is the reason why everybody listening to this debate understands something different in what we are saying.
57. At the IRI, and elsewhere, what we maintain is that there are also tertiary retentions. Hence, when Husserl says that geometry was made possible by the development of alphabetic writing it is because such writing allowed Thales, for instance, to retain the trace, to trace. Alphabetic writing allows one to trace step by step Thales' geometric reasoning, not for you or I, but for himself. Since Thales cannot reason using the *more geometrico*, since he masters his own reasoning step by step, he has exteriorised it, spatialised it, detemporalised it. It is no longer only in his head, he has put it down on paper, or in the sand. The same goes for the square drawn by Socrates for the slave Menon: he has exteriorised it, he has transformed it into a tertiary retention, and starting from there he can self-regulate himself.

58. We think that regimes of truth are linked to evolutions of tertiary retentions. When we live in a world where there are alphabetic tertiary retentions, we don't think the same way as in a world where there are ideographic tertiary retentions. For millennia, China has experienced and thought with ideographic tertiary retentions; as such, a cultured (*lettré*) person in China from a particular historical period does not think the same as a cultured person in Europe. Obviously, there is a reason that doesn't at all have to do with culture (*pas du tout lettrée*). Reason is not what there is in the Occident but what in the Occident goes through the letter and through reasoning.
59. What is interesting to me in what you do is that you identify what I consider as factors of entropy, irrational factors that cannot last. And this is where Frédéric Kaplan is interesting as he considers that the model of Google – if we extend it in a purely abstract way – tends to self-destruct because it misspells the days, destroys the semantic diversity of languages and, at some point, the capitalist exploitation of language will lead to there being no more language and so no more possible exploitation. We argue that the digital will become again neguentropic and will give rise to a neguentropology – and not to a post-humanism, to a transhumanism but to a negative anthropology – only as long as it will again be capable of interpretating. Not only do we think that it will be able to do so very soon, but we are trying to do it: we are currently developing tools to do so. These tools are aimed at producing bifurcations, as Deleuze reading Borges would say.
60. I would like to switch to another topic to indicate that all we have just discussed, that you have argued concerning algorithmic governmentality, currently translates itself into countless works showing that everywhere in the world, except in France—the silence in France regarding this topic is astounding—generalised automatisation is now here. I am asking this question because, ultimately, where does algorithmic governmentality lead? There are no more jobs, and consequently no more purchasing power, no more redistribution of salaries. So how does it work? It cannot work.
61. At the IRI, we maintain that the technologies you are talking about, which are those of algorithmic governmentality, can on the contrary produce what I called already ten years ago, an '*otium* for the people'. The *otium*, or the *scholê* in Ancient Greece, was the nobility's complete freedom to contemplate, to think intermittently; it is what Leibniz calls 'leisure'. Today the question is: how are we going to redistribute leisure time to create the commons, that is to say a right to produce collective intelligence by using these technologies? Evidently, these technologies are the conditions to attain that. They are not at all what needs to be rejected.
62. I think that the following ten years are going to be terrifying on a global scale, on a scale humans have never before encountered, never. A Japanese person said: "I am going to hire robots," he said "hire". Robots are not simply automata, they are

humanoids, and he also said that these robots are going to be much better than Japanese workers. It is a very serious question, it is not at all a form of storytelling, it is really very serious. Four months ago, Amazon announced that it had bought an automation company to produce ten thousand robots for its own use, and that everybody was going to be fired.

63. The process is now being implemented. It is absolutely irrational, it cannot function. And Bill gates responded by saying that all we had to do was to lower salaries to make workers more competitive in relation to robots. They will continue to work as long as they remain competitive in relation to robots. But, firstly, how long can this last? For me, not so long. Moreover, it is completely absurd because further lowering salaries further lowers people's purchasing power, exacerbating the crisis, and so it means more subprime mortgages and intractable medium-term problems. So it is totally absurd and consequently we need to switch to another model. We need to produce this new model. We cannot ask Bill Gates to produce it, nor can we ask ENA graduates and Mr. Pisani-Ferry.[2] We need to develop it, we need to come up with some ideas because this is what will produce value tomorrow.
64. These are the things I want to share to open the discussion. I also think that it would be worth it, I don't know when, if we got together, with others too, with Thomas Berns and others, and created a cartography of what we are doing with Foucault, Guattari, and Deleuze, while faced with these objects. How do we renew their problems by individuating them, like Deleuze and Guattari would say? By individuating these concepts, by critiquing and going beyond them, such that we are able to produce new ones.

Response by Antoinette Rouvroy

65. I would simply like to return to Foucault, Deleuze, Guattari, all these thinkers of critique and of emancipation. Maybe I am wrong but I have a sense that what they presented by means of the metaphor of the rhizome – the idea of the revenge of the plan of immanence against transcendence, and all these kinds of things – was positioned very strategically against something that appeared to them very oppressive, very hierarchical, and that precedes what gave rise to all of this, namely the substitution of the government by governance.
66. All that happened with the advent of governance is precisely the absolute dilution, a kind of horizontalisation, of all that has to do with authority, namely the disappearance of authority itself. I mean authority in the sense of the capacity to decide, which is to say the capacity precisely to attempt something which can fail.

[2] French economist, general commissioner of France Stratégie, le Commissariat général à la stratégie et à la prospective.

With governance we no longer decide, we no longer decide anything actually. Alain Supiot showed it very well in *The Spirit of Philadelphia: Social Justice vs. the Total Market* (2012): we quantify, we quantify, and finally quantified images replace the quantified real. We govern without deciding, and so it really is the disappearance of the decision itself, and so, of all forms of apparently oppressive structure.

67. In this regard I think that times have changed since the 1960's because of, or thanks to, European institutions, globalisation. We have already changed our model of government, without even mentioning the question of algorithmic governmentality. And now, critique and the real have become inter-layered, enfolded, and there is no longer any space between them.
68. The critique of the 1960's, I think, helps us diagnose this but perhaps won't help us find either the solutions or the exits. It is interesting to engage with Foucault in order to eventually clean up some of his most contemporary concepts and to make them sound. Things have changed: for instance the Foucauldian stand on archeology is now difficult to maintain with regard to a pure contemporaneity that continually renews itself, that is a juxtaposition of successive nows, as Franck Fischbach (2011) would say. What becomes of an archeological approach in relation to that? What becomes of a genealogical stand with respect to the fact that we are now in an extremely multicultural universe, without any cultural community that is really closed, or closed enough, without cultural microcosms? It becomes really hard.
69. However, what we can do with Foucault, since he is dead, is to turn him on his head to show that in algorithmic governmentality, for instance, it is no longer a matter of producing docile bodies according to a norm, but of making the norms docile according to the body. For me, these structures of thought are very effective, and since I have the alibi of being a lawyer and not a philosopher, I don't feel compelled to be faithful to Foucault, I am not an exegete of Foucault. I think that during this period they had an almost geometrical way of expressing their thoughts, something that is little bit missing today.
70. The remains that we mentioned above are effectively the equivalent of failures, and these failures presuppose the ability to fail. Michaël Baltus, a very good friend of mine who works in design and fine arts was explaining to me how in his work, in his work habits, his gestures had changed since the arrival of computers. He was telling me that before he always had to cross out, erase, but that the stigmata of the mistakes, of the failed gestures, would remain. And sometimes these stigmata would produce something very interesting. Nowadays, if we make a mistake when drawing on a tablet, we delete it. The delete function 'Ctrl Z' has killed the need to cross out. Yet, there is something interesting in the deletion. I think it is the same in the political domain with Twitter. Amongst politicians who tweet, it is the speed, the continuity of the thread that, for all intents and purposes, erases or covers up older tweets, and ultimately allows one to forget everything. Maybe it is not that new.

71. Kundera, I think in *Slowness*, explains that we always think that nothing will be forgotten, that everything will be forgiven. It is exactly the opposite: nothing is forgiven and everything is always forgotten. The role of forgiving is now played by forgetting, and it may be much more true today than before: we think that we retain everything, that digital memory is cumulative. For the machines, yes, but for humans, not at all. We have never had such bad memory since we started having all these tools that retain information for us and also forget it for us, or that tell us: "It is archived, you will be able to retrieve it." For example, having a Facebook account myself, I know how hard it is to retrieve information that one has posted, it takes a great deal of time.
72. That is why failure, remains, are so important. They are sources of resistance that should not be taken away from us. We thus have to find material, logistical, and archival techniques of failure, of failed gestures, of ineffectiveness, of wandering too. I think that today, what we feel we don't have access to —and that is moreover why we procrastinate so much on social networks—is precisely this notion of wandering that we try to look for on the Internet, etc. We wander but we wander differently than when we used to walk a lot more in cities because we were not in front of a computer. This wandering in cities, I think, exposed us to alterity, to others, whereas wandering in front of a computer, or even wandering in cities with headphones and iPad in hand, with eyes glued to Google maps, doesn't really expose us to the same types of encounter and of alterity as physical wandering does.
73. I also think that one source of resistance, outside of all that you do at the IRI that is so important for re-establishing interpretation and individuation through interpretation, resides in the failure of the body: our own physicality. Even if everything is digitizable, I don't know if at some point the posthumanists or the transhumanists—I don't know how you're supposed to say it, I always get these mixed up—will be right: are we really going to put humans into machines, not in the sense of Guattari, but in the sense of the posthumanists? Are we going to 'upload' our brains into machines? This, I don't know, we'll have to see. The fact remains that today we are, whether we want it or not, affected in our bodies by a whole series of events, for the moment not digitizable, not predictable or only relatively so. Birth has become more and more predictable but not for the one who is born, unfortunately for him. But birth nonetheless, death, disease, physical suffering, affection, are not necessarily digitizable even though it is precisely what produces empathy.
74. If we are talking about the common, I think that the common is not necessarily bearable or even desirable without this empathy, without this capacity for being affected by someone else's sufferings. The common is really charnel, and it is complementary and not at all in opposition to everything that you are saying. It is a completely complementary dimension.
75. I agree with you on these distinctions between reason and understanding. I feel that

algorithmic governmentality is in the process of making *a priori* synthetic judgements possible and we all know that these judgements are not sustainable. And yet, that is exactly what is happening, and it shows that you are completely right, that it is a matter of irrationality because it is effectively synthetic but prior to all experience. It is a quite peculiar situation; it is something I should certainly continue to question further.

76. I totally agree with you: the law cannot be reduced to the fact. Sadly, and in order to become more effective, but also in order to maintain a certain form of legitimacy, there is a tendency in law to rely on facts such as they are given, for instance, by economists, etc. It is becoming very difficult for law to keep its singular modes of enunciation and verification: the juridical regime of truth has nothing to do with the algorithmic or statistical regime of truth, or even the regime of truth in physics or in economics.
77. There is a plurality, and this is very much desirable, of modes of construction of what we take as reality, and it is precisely within the disparity of these modes of construction of reality that we can hope to not talk with one voice but to show on the contrary that we will never reach an agreement. It is precisely within this disagreement, which was not anticipated, that resides the common. This is to say that this disagreement justifies the necessity of spaces of debate. Desrosières (1992) defines the public sphere in these terms. He says that the public sphere is a space to debate collective things that are not to be reduced solely to competition between individual self-interests. To do so, one needs uncertainty, whereas the tendency now is to say: to discuss all together, we need to have the same vocabulary, the same objects, we need to agree about everything first.
78. Finally, it seems to me that we try to find a sort of truth, of necessity when there is no necessity, when there is only plurality and when it is precisely this polyphony and these disagreements that produce the vitality of what could eventually become a common. I believe that we have to give up on the truth. One is happy to give up in order to agree. Yes, we can agree on certain things. That is what an orchestra does. There is a beautiful text by Bruno Latour, "La preuve par l'orchestre" (2011). Instead of looking for the truth, he looks in a way for echoes, resonances, for what is produced when all the instruments suddenly start to play together: it is nonetheless quite strange that this produces something that makes sense despite the disagreements.
79. And the law, in all of that? I think we need to take law seriously, really seriously, and to embrace its barrenness, its ungracefulness. The law has its own functional rules, its own way of making the real exist. For instance, the confession of a crime in a court is truth-worthy not according to the consistency of the relation between what has been said and what actually happened, but because of the fact that the law gives a value of truth to the confession itself. It is a juridical operation. It is not an operation

in the real. It is an operation within the real of the law, if you will, but the real of the law is not the real of the act.

80. I think we need to bear this distinction in mind. However, today's quest for absolute objectivity, for absolute impartiality results in the fact that we try to stay closer to the fact, namely to the real in itself. We prevent interpretation and this is causing problems in the juridical metabolism itself. To me, even big data, data mining, profiling, etc., are not the ultimate causes of what I am trying to describe in terms of a shift in governmentality. I think that these are more simply its symptoms, and that its causes lie elsewhere. I think that its causes are to be found in a sort of laziness that we have. We rely more and more on algorithms even though they function according to a type of rationality that is no longer our own and that decides for us. It is laziness, a laziness that produces a decline in and an impoverishment of language. It is not language that has to be blamed but the regressive laziness of thinking that cannot stop devitalizing language.

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